WHAT IS CLAIMED IS:

1. A combined magnetic head comprising:

a DC erase head for magnetizing a servo band of a magnetic tape in one of longitudinal directions of said magnetic tape with contacting the magnetic tape that is running; and

a servo write head for magnetizing a servo signal in a reverse direction for said one direction and writing the servo signal on said servo band, with contacting said magnetic tape,

wherein said DC erase head and said servo write head are integrally configured through a non-magnetic body, and

wherein a DC erase head gap of said DC erase head and a servo write head gap of said servo write head are aligned in said longitudinal directions, and are simultaneously formed with one mask by a photolithography method.

2. A manufacturing method of a combined magnetic head that magnetizes a servo band of a magnetic tape in one direction of longitudinal directions of said magnetic tape with contacting the magnetic tape, magnetizes a servo signal in a reverse direction for said one direction, and writes the servo signal on said servo band, the method comprising:

a first process where a DC erase head core main body and a servo write head core main body are integrally configured through a non-magnetic body, and

a second process for simultaneously forming a DC erase head gap film formed at said DC erase head core main body and a servo write head gap film formed at said servo write head core main body at an arrangement aligned in said longitudinal directions by a photolithography method of using one mask.

3. A combined magnetic head according to claim 1, wherein a first base

member has a coil groove where a coil is wound, and on an inner circumference face thereof, a magnetic layer is formed by a sputtering method.

4. A combined magnetic head according to claim 1, wherein a first base member has a coil groove where a coil is wound, and on an inner circumference face thereof, a magnetic layer is formed by a plating method.

5. A combined magnetic head according to claim 1, wherein a DC erase head gap is formed of silica.

6. A combined magnetic head according to claim 3, wherein a DC erase head gap is formed of silica.

7. A combined magnetic head according to claim 4, wherein a DC erase head gap is formed of silica.

8. A combined magnetic head according to claim 1, wherein a servo write head gap is formed of silica.

9. A combined magnetic head according to claim 3, wherein a servo write head gap is formed of silica.

10. A combined magnetic head according to claim 4, wherein a servo write head gap is formed of silica.

11. A combined magnetic head according to claim 5, wherein a servo write head gap is formed of silica.

12. A combined magnetic head according to claim 6, wherein a servo write head gap is formed of silica.

13. A combined magnetic head according to claim 7, wherein a servo write head gap is formed of silica.

14. A combined magnetic head according to claim 1, wherein a magnetic layer, magnetic film, and surface magnetic layer of said DC erase head are formed of any of Permalloy, Sendust, Alperm, and amorphous.

15. A combined magnetic head according to claim 3, wherein a magnetic layer, magnetic film, and surface magnetic layer of said DC erase head are formed of any of Permalloy, Sendust, Alperm, and amorphous.

16. A combined magnetic head according to claim 4, wherein a magnetic layer, magnetic film, and surface magnetic layer of said DC erase head are formed of any of Permalloy, Sendust, Alperm, and amorphous.

17. A combined magnetic head according to claim 5, wherein a magnetic layer, magnetic film, and surface magnetic layer of said DC erase head are formed of any of Permalloy, Sendust, Alperm, and amorphous.

18. A combined magnetic head according to claim 1, wherein said non-magnetic body is formed of any of AlTiC, titan oxide calcium, and non-magnetic ferrite.

19. A combined magnetic head according to claim 3, wherein said non-magnetic body is formed of any of AlTiC, titan oxide calcium, and non-magnetic ferrite.

20. A combined magnetic head according to claim 4, wherein said non-magnetic body is formed of any of AlTiC, titan oxide calcium, and non-magnetic ferrite.